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THE GENUS *OREOHELIX* IN CALIFORNIA

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One of the strangest anomalies¹ in distribution encountered by the student of our western land snails is the occurrence on Santa Catalina Island off the coast of southern California of a species of the genus *Oreohelix*², a great genus characteristic of the Rocky Mountains and the scattered ranges of the Great Basin region. With all the wealth of forms brought to light beginning with the days of Hemphill, no other member of the genus has hitherto been shown to occur within the boundaries of this state or nearer than the Charleston Mountains in Nevada where *Oreohelix handi* Pilsbry & Ferriss was brought to light by the late James H. Ferriss a few years ago³. Many Californian students have felt that if *avalonensis* really belongs systematically where we at present rank it, some trace of the occurrence of the genus in one or more of the numerous mountain ranges occupying the wildernesses of the immense intermediate area, at present so wholly empty on our distribution maps, would sooner or later be discovered. There has been an avid search and on the part of many, especially in the San Bernardino and Cuyamaca Ranges, but only a general barrenness of

¹Possessed of all the facts, we would of course find this to be no real anomaly at all, at least in any sense of the abnormal or unreasonable.

²*O. (Radiocentrum) avalonensis* Hemphill.

³*O. handi* belongs to the typical section of the genus. The case for the subgenus *Radiocentrum* is considerably worse, all known forms other than *avalonensis* being confined to the Chiricahua and Big Hatched Mountains in southeastern Arizona and southwestern New Mexico.

result if we except an unconfirmed rumor of a snail of this general type somewhere in the Cuyamacas.

Prof. Edmund C. Jaeger and I have thought for some time that the surest way of bringing typical *Oreohelix* into the Californian fauna lay in exploration of some of the mountains near the Nevada line, among which the Clark Range, and more especially its culminating peak Clark Mountain, which rises to an altitude of better than 7,900 feet in northeastern San Bernardino County, both by reason of its elevation and the occurrence of similar limestone exposures and associated plant formations similar to those known to exist in established *Oreohelix* country in the Charleston Mountains to the northward in Nevada, appeared to offer the most promise.

After having made other visits to the region without notable result, Prof. Jaeger has come back from his last one with a nice series of specimens, including both living animals and empty shells, which are *Oreohelix* indeed. They were taken (4 Oct., 1930) in large limestone slides among fir needles and rock fragments near the head of the gulch on the west slope of the main peak (Clark Mountain) and prove to represent a race closely allied to *O. handi* of the Charlestons which is being dealt with more fully in another connection as a new Californian species. Occurring in association with the *Oreohelix* were found a few dead shells of *Succinea arava* Say and two immature specimens of a *Vallonia* which appears to be *V. cyclophorella* Ancy.

Back of Redlands, where I write this, looms Mount San Gorgonio, highest elevation of land in southern California. Standing on the summit of this great massif, one's view in clear weather extends on the westward down the great valley of southern California to the waters of the Pacific and on to the blue mass of Santa Catalina Island, itself a mountain range of no mean dimensions and the one maritime seat of *Oreohelix*. One turns to the northeast where loom the mountains of the Nevada boundary and the Charlestons,—more *Oreohelix* country. Over on the eastern horizon beyond the Colorado River are visible some of the

Oreohelix-inhabited ranges of northern Arizona. All in between, and around and about one, tumble and roll in range upon range, a sea of mountains incalculable, and from none of them is any member of the genus as yet known. On most of them there seems doubtless little chance of its occurring, but on some of them it may. So although we have at last definitely established *Oreohelix* over on the California side of the line, there remain the greater problem of its further distribution and the possible occurrence of additional species, steps toward the elucidation of which we may hope will soon be taken.

A NEW LYMNAEID FROM IDAHO

BY JUNIUS HENDERSON

LYMNAEA IDAHOENSIS, new species. Plate 6, Figs. 8.

Shell rather small, globose, spire somewhat dome-shaped. Whorls about 4, the last constituting a very large part of the whole shell, the penultimate one usually much swollen, the others very small and inconspicuous, but little or not at all elevated above the succeeding whorl. Suture well impressed. Aperture more than half the length of the entire shell, widest below the middle. Peristome thin, not thickened by internal callus in any specimen at hand, gracefully curved above, somewhat more abruptly curved below. Columella forming a heavy, twisted plait, with thin callus reflected and closely appressed over the umbilicus. Without a lens the surface looks smooth and dull, but a good lens reveals crowded, wavy growth lines, crossed by faint spiral lines, with small malleations on some specimens. Color medium brown. Type specimen, in University of Colorado Museum: Altitude 17, diameter 11.5, height within aperture 8.5, width within aperture about 6 mm. Another example: Alt. 15.5, diam. 11, height within aperture 8.5 mm. In a large lot examined there is but little variation, chiefly in the elevation of the spire, as shown by the figures, and in the